

United States Patent and Trademark Office

h

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,017	11/20/2003	Timothy Clarence Willging	SJO920030048US1	5665
	7590 01/08/2008 VNFS & VICTOR LLP		EXAMINER	
KONRAD RAYNES & VICTOR, LLP. ATTN: IBM37			WALSH, JOHN B	
	EVERLY DRIVE, SUITE 210 LLS, CA 90212		ART UNIT	PAPER NUMBER
			2151	
			MAIL DATE	DELIVERY MODE
			01/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

•	Application No.	Applicant(s)		
	10/721,017	WILLGING ET AL.	LGING ET AL.	
Office Action Summary	Examiner	Art Unit		
	John B. Walsh	2151		
The MAILING DATE of this communication ap	ppears on the cover sheet with t	he correspondence address	***	
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING [- Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICA .136(a). In no event, however, may a reply d will apply and will expire SIX (6) MONTHS te, cause the application to become ABANI	FION. be timely filed from the mailing date of this communicate ONED (35 U.S.C. § 133).		
Status				
1) ■ Responsive to communication(s) filed on 30 (2a) ■ This action is FINAL . 2b) ■ This action for allows closed in accordance with the practice under	is action is non-final. ance except for formal matters	•	is	
Disposition of Claims				
4)	awn from consideration.			
Application Papers				
9) The specification is objected to by the Examination The drawing(s) filed on is/are: a) acceptable and applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examination is objected.	ccepted or b) objected to by e drawing(s) be held in abeyance. ction is required if the drawing(s)	See 37 CFR 1.85(a). s objected to. See 37 CFR 1.121		
Priority under 35 U.S.C. § 119				
12) Acknowledgment is made of a claim for foreig a) All b) Some * c) None of: 1. Certified copies of the priority documer 2. Certified copies of the priority documer 3. Copies of the certified copies of the pri application from the International Bures * See the attached detailed Office action for a list	nts have been received. Ints have been received in Applority documents have been received au (PCT Rule 17.2(a)).	ication No beived in this National Stage		
Attachment(s)	A) 🗍 Intonious Sum	mary (PTO-413)		
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 	Paper No(s)/M	mary (PTO-413) ail Date mal Patent Application		

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 11, 12, 14-22 and 24-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are drawn to a system and an article of manufacture.

The specification on page 8, paragraph 0020 discloses the invention can be implemented as software. Software is non-statuary subject matter absent some computer readable storage medium for the software to be realized.

The claims fail to place the invention squarely within one statutory class of invention. On page 9, paragraph 0020 of the instant specification, applicant has provided evidence that applicant intends the "medium" to include signals. As such, the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore this claim(s) is/are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not a combination of substances and therefor not a composition of matter.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

10/721,017 Art Unit: 2151

A person should be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 4-12, 14-22 and 24-30 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No. 20030204597 A1 to Arakawa et al.

As concerns claims 1, 11, and 21, providing information on a network storage system, comprising: receiving, by a storage resource manager (200; 0054), information from at least one host system (figure 2, 300) identifying storage units (figure 2; 100) the host systems access through at least one identified storage system; probing, by the storage resource manager, the at least one storage system to determine storage units available through the storage system and an identifier (0048-0050) of the storage system, wherein the storage system manages access to the storage units and maintains an assignment of host systems to the storage units; and processing, by the storage resource manager, the information received from the host systems on storage units the host systems access and the information probed from the at least one storage system on the storage units available through the storage system to determine an association (figure 5; 1011, 1012) of host systems to storage units for the at least one storage system.

As concerns claims 2, 12 and 22, wherein the information from the host systems is gathered by an agent program (340) executing in each host systems that queries the host system to determine the storage units the host system is capable of accessing and the at least one storage system through which the storage units are accessed, and wherein the agent program transmits the information on the accessible storage units and the at least one determined storage system to

10/721,017

Art Unit: 2151

the storage resource manager (310,330; 0054).

As concerns claims 4, 14 and 24, wherein the agent program determines the accessible storage units and the at least one storage system by issuing at least one inquiry command that is a member of set of an industry standard storage interface (0089).

As concerns claims 5, 15 and 25, wherein the industry standard storage interface (0089) comprises the Small Computer System Interface (SCSI) and wherein the inquiry command comprises a SCSI inquiry command and wherein the storage units comprise Logical Unit Numbers (LUNs) (figures 7-8).

As concerns claims 6, 16 and 26, wherein the agent program determines the accessible storage units and the at least one storage system by: issuing a first inquiry command to determine a vendor and model number (0115) of the storage system including the accessible at least one storage unit; determining whether the determined vendor and model number are for a recognizable storage system (0115); and issuing a second inquiry command to determine the at least one accessible storage unit and the identifier of the storage system having the accessible storage unit if the determined vendor and model number are for one recognizable storage system (0115-0117).

As concerns claims 7, 17 and 27, further comprising: maintaining, by the storage resource manager, in a data repository: (i) host system information (0128) including the information received from the host systems identifying the host system and the storage units accessible from that host system and (ii) storage system information (0128) probed from the at least one storage system identifying the storage system and the storage units available at through that storage system.

Application/Control Number:

10/721,017 Art Unit: 2151

As concerns claims 8, 18 and 28, further comprising: maintaining, by the storage resource manager, host/storage unit assignment information (0127;0117) indicating for one storage system the storage units available through that storage system and the host systems that access the available storage units, wherein the host/storage unit assignment information is generated by processing the host system and storage system information in the data repository.

As concerns claims 9, 19 and 29, wherein probing the at least one storage system comprises using an industry standard storage management interface to access information from the storage system $(\overline{0089;0042})$.

As concerns claims 10, 20 and 30, wherein the information received from the host systems indicates an operating system (320) used by the host system, wherein the storage resource manager further performs: generating information on the association of the host systems to storage units for at least one storage system (0128,0133); and generating information on the operating system used by each host system associated with the storage units (0133).

Response to Arguments

5. Applicant's arguments filed October 30, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., storage resource manager separate from the storage system; storage resource manager processes information received separately; single component of a storage resource manager) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

10/721,017

Art Unit: 2151

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The applicant argues Arakawa does not disclose the storage resource manager probing the storage subsystem to determine information on the storage units available at the storage system since it already has the information. If the information is already obtained then "probing" must have been performed in order to obtain this data. Furthermore the claims are given the broadest reasonable interpretation and the probing as claimed is for "determining" this information, therefore if the information is at hand it can be "determined" and therefore satisfies the "probing".

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10/721,017

Art Unit: 2151

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John B. Walsh Primary Examiner Art Unit 2151